(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 8 July 2004 (08.07.2004)

PCT

(10) International Publication Number WO 2004/057313 A1

- (51) International Patent Classification⁷: 21/53
- G01N 21/05,
- (21) International Application Number:

r: PCT/SE2003/002013

(22) International Filing Date:

18 December 2003 (18.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0203868-5

20 December 2002 (20.12.2002) SE

0203869-3

20 December 2002 (20.12.2002) SE

- (71) Applicant (for all designated States except US): OPTOQ AB [SE/SE]; Berzelius Science Park, S-582 25 Linköping (SE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PETTERSON, Magnus [SE/SE]; Kärrvägen 7, S-589 41 Linköping (SE). DAHLSTRÖM, Anna [SE/SE]; Ekkällegatan 18, S-582 30 Linköping (SE). PETTERSON, Hans [SE/SE]; Brunörtsvägen 9, S-590 62 Linghem (SE).

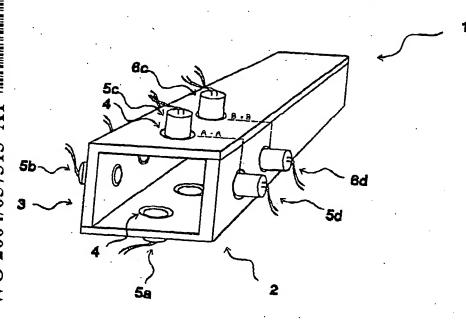
- (74) Agent: BERGLUND, Erik; Berglunds Patentbyrå AB, Aspebråten, S-590 55-Sturefors (SE).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND DEVICE FOR MEASUREMENTS IN BLOOD



(57) Abstract: We present an optical probe arrangement that surrounds blood in a receptacle. It comprises LED's and light detector arranged to overcome the variations when the receptacle is translucent medical tubing and the like. Also, a signal processing algorithm is used to average signals from a plurality of light detectors, to further enhance results when measuring hematocrit. The invention makes it possible to add the feature of hematocrit measurement into dialysis system without major alterations to the dialysis machine or transport tubing.

WO 2004/057313 A1